

Claims

[1]

A light control film having a rough surface, wherein the rough surface satisfies, for an arbitrary cross section perpendicular to a base plane of the film, a condition that average (θ_{ave} , degree) of absolute values of slope with respect to the base plane of a curve along the edge of the cross section contoured by the rough surface (henceforth referred to as "profile curve") is not less than 20 degrees and not more than 75 degrees, and absolute value of skewness (JIS B0601:2001) of the profile curve is not more than 1.2 for substantially any profile curve.

[2]

A light control film having a rough surface formed by a patterned layer comprising a material having a refractive index n , wherein the rough surface satisfies, for an arbitrary cross section perpendicular to a base plane of the film, a condition that average (θ_{ave} , degree) of absolute values of slope with respect to the base plane of a curve along the edge of the cross section contoured by the rough surface (henceforth referred to as "profile curve") is not less than $(36 - 10n)$ degree and not more than $(86 - 10n)$, and absolute value of skewness (JIS B0601:2001) of the profile curve is not more than $(n - 0.4)$ for substantially any profile curve.

[3]

A light control film having a rough surface, wherein the rough surface satisfies, for an arbitrary cross section perpendicular to a base plane of the film, a condition that average (θ_{ave} , degree) of absolute values of slope with respect to the base plane of a curve along the edge of the cross section contoured by the rough surface (henceforth

referred to as "profile curve") is not less than 20 degrees and not more than 75 degrees, and kurtosis (JIS B0601:2001) of the profile curve is not less than 1.5 and not more than 5.0 for substantially any profile curve.

[4]

A light control film having a rough surface formed by a patterned layer comprising a material having a predetermined refractive index of n , wherein the rough surface satisfies, for an arbitrary cross section perpendicular to a base plane of the film, a condition that average (θ_{ave} , degree) of absolute values of slope with respect to the base plane of a curve along the edge of the cross section contoured by the rough surface (henceforth referred to as "profile curve") is not less than $(36 - 10n)$ degree and not more than $(86 - 10n)$, and kurtosis (JIS B0601:2001) of the profile curve is not less than 1.5 and not more than $(10n - 11)$ for substantially any profile curve.

[5]

A light control film having a rough surface, wherein the rough surface satisfies, for an arbitrary cross section perpendicular to a base plane of the film, a condition that ratio ($L_r = L2/L1$) of a length ($L2$) of a curve along the edge of the cross section contoured by the rough surface (henceforth referred to as "profile curve") to a length ($L1$) of a straight line defined as an intersection of the base plane and the cross section is $1.1 \leq L_r \leq 1.8$, and absolute value of skewness (JIS B0601:2001) of the profile curve is not more than 1.2 for substantially any cross section.

[6]

A light control film having a rough surface formed by a patterned layer comprising a material having a refractive

index n , wherein the rough surface satisfies, for an arbitrary cross section perpendicular to a base plane of the film, a condition that ratio ($L_r = L_2/L_1$) of a length (L_2) of a curve along the edge of the cross section contoured by the rough surface (henceforth referred to as "profile curve") to a length (L_1) of a straight line defined as an intersection of the base plane and the cross section is $(1.9 - 0.5n) \leq L_r \leq 1.8$, and absolute value of skewness (JIS B0601:2001) of the profile curve is not more than $(n - 0.4)$ for substantially any cross section.

[7]

A light control film having a rough surface, wherein the rough surface satisfies, for an arbitrary cross section perpendicular to a base plane of the film, a condition that ratio ($L_r = L_2/L_1$) of a length (L_2) of a curve along the edge of the cross section contoured by the rough surface (henceforth referred to as "profile curve") to a length (L_1) of a straight line defined as an intersection of the base plane and the cross section is $1.1 \leq L_r \leq 1.8$, and kurtosis (JIS B0601:2001) of the profile curve is not less than 1.0 and not more than 4.5 for substantially any cross section.

[8]

A light control film having a rough surface formed by a patterned layer comprising a material having a refractive index n , wherein the rough surface satisfies, for an arbitrary cross section perpendicular to a base plane of the film, a condition that ratio ($L_r = L_2/L_1$) of a length (L_2) of a curve along the edge of the cross section contoured by the rough surface (henceforth referred to as "profile curve") to a length (L_1) of a straight line defined as an intersection of the base plane and the cross section is $(1.9 - 0.5n) \leq L_r \leq 1.8$, and kurtosis (JIS

B0601:2001) of the profile curve is not less than 1.0 and not more than $(10n - 11.5)$ for substantially any cross section.

[9]

A backlight unit comprising a light guide plate equipped with a light source for at least one end portion thereof and having a light emergent surface approximately perpendicular to the end portion, and a light control film provided on the light emergent surface of the light guide plate, wherein the light control film according to any one of claims 1 to 8 is used as the light control film.

[10]

The backlight unit according to claim 9, wherein a prism sheet is used between the light control film and the light guide plate.

[11]

A backlight unit comprising a light source, a light diffusive plate provided on one side of the light source and a light control film provided on the side of the light diffusive plate opposite to the light source side, wherein the light control film according to any one of claims 1 to 8 is used as the light control film.